

REMARKS

Claims 1-32 are pending in the present application. Claims 2, 3, 10-16, 18, 19, and 26-32 were withdrawn from consideration due to a restriction requirement. Claims 1, 4-9, 17, and 20-25 have been rejected. Claim 5 is amended to correct an informality.

Reconsideration of the claims is respectfully requested.

Also, applicants have submitted proposed correction to drawing labeled 10A as suggested by the examiner in red ink. These changes will be incorporated into a formal set of drawings upon approval of the proposed changes by the examiner.

I. 35 U.S.C. § 112, Second Paragraph

The examiner has rejected claims 5-9 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter, which applicants regard as the invention. This rejection is respectfully traversed.

In rejecting these claims, Examiner states,

It is not clear from the claim what has to do with the invention (a magnetic tape reader) increasing the stiffness of a free layer of a magnetic disk head spin valve sensor.

Applicant responds by amending claim 5, to correct incorrect wording of that claim. Claim 5, as amended, now reads:

5. (Currently Amended) The apparatus of claim 4, wherein the effective anisotropy field of the reduced sensitivity spin valve sensor is increased by increasing a stiffness of a free layer of the reduced sensitivity spin valve sensor.

Therefore the rejection of claims 5-9 under 35 U.S.C. § 112, second paragraph has been overcome.

II. 35 U.S.C. § 102, Anticipation

The examiner has rejected claims 1, 4-9, 17, and 20-25 under 35 U.S.C. § 102 as being anticipated by Tobise et al., USPN 5748416. This rejection is respectfully traversed.

In rejecting the claims, the Examiner states:

...Tobise et al discloses an apparatus for reading data (figure 15), comprising:
a magnetic tape media contact surface configured to contact a magnetic tape media; and
a reduced sensitivity spin valve sensor 20', wherein the reduced sensitivity spin valve sensor senses an applied magnetic field from the magnetic tape media when the magnetic tape media passes by the reduced sensitivity spin valve sensor, and wherein the reduced sensitivity spin valve sensor has a sensitivity less than magnetic disk head spin valve sensors (column 5, lines 11-19).

Claim 1 is reproduced for discussion:

1. An apparatus for reading data, comprising:
a magnetic tape media contact surface configured to contact a magnetic tape media; and
a reduced sensitivity spin valve sensor, wherein the reduced sensitivity spin valve sensor senses an applied magnetic field from the magnetic tape media when the magnetic tape media passes by the reduced sensitivity spin valve sensor, and wherein the reduced sensitivity spin valve sensor has a sensitivity less than magnetic disk head spin valve sensors.

In rejecting claim 1, Examiner quotes Tobise referring to FIG. 15, and col. 5, lines 11-19, which also refer to FIG. 15. That section, along with text from col. 5, lines 20-24, states:

The narrowing of the playback track widths makes the longitudinal length of the MR film shorter, so that permanent magnetic films 21 disposed separately on either side are separated by a smaller interval of space. Consequently, a strong magnetic field is applied to the MR film. This means that using a permanent magnet film having the same residual flux density and film thickness product (B,

t) as is used for conventional side playback tracks will have difficulty causing the rotation of the magnetization for the MR film. Further, while Barkhausen noise will be limited, the sensitivity will decrease. Thus, it is necessary to minimize the (B,t) product within a range where Barkhausen noise can be limited without decreasing sensitivity.

[Emphasis added.]

Applicant respectfully submits that this passage teaches away from the present invention. Tobise is concerned with limiting Barkhausen noise, but specifically warns against making changes in a read head structure that will decrease sensitivity. For example, at col. 5, lines 33-35, Tobise again states that it is undesirable to reduce sensitivity:

Barkhausen noise would be limited while output would not be decreased.

Further, at col. 5, lines 43-48:

The object of the present invention is to provide a bias-type MR head using a permanent magnet film to handle narrow recorded tracks and provide a narrow gap so that recording density can be increased. A magnetic head is provided that is highly sensitive and that limits Barkhausen noise by optimizing the magnetic properties of the permanent magnet film.

[Emphasis added.]

Hence, applicant respectfully submits that Tobise teaches away from the present invention, because the present invention specifically and intentionally reduces sensitivity-while Tobise clearly makes known its intention to avoid reducing sensitivity, as quoted above. A reference may be said to "teach away" from the claimed invention when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant. *In re Gurley*, 27 F.3d 551, 553, 31 U.S.P.Q.2D 1130, 1131 (Fed. Cir. 1995). In the present case, it is respectfully submitted that Tobise's teaching away

from reducing sensitivity would discourage those of ordinary skill in the art from the path taken by applicant. "It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art." *In re Hedges*, 228 U.S.P.Q. at 687.

Independent claim 17 includes limitations substantially similar to those of claim 1, such that the arguments for claim 1 are believed to apply to claim 17 as well. Hence, claim 17 is also believed allowable over the cited reference. Likewise, dependent claims 4-9, and 20-25 are also believed distinguished by virtue of their dependence on allowable claims. Hence, it is respectfully submitted that all claims are distinguished from the cited reference. Favorable reconsideration of the claims is respectfully requested.

III. Drawing Changes

Applicants have submitted proposed corrections to drawings labeled 10A as suggested by the examiner in red ink. These changes will be incorporated into a formal set of drawings upon approval of the proposed changes by the Examiner.

IV. Conclusion

It is respectfully urged that the subject application is patentable over Tobise and is now in condition for allowance.

The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

DATE: 3.9.04

Respectfully submitted,



Patrick C. R. Holmes
Reg. No. 46,380
Carstens, Yee & Cahoon, LLP
P.O. Box 802334
Dallas, TX 75380
(972) 367-2001
Attorney for Applicant

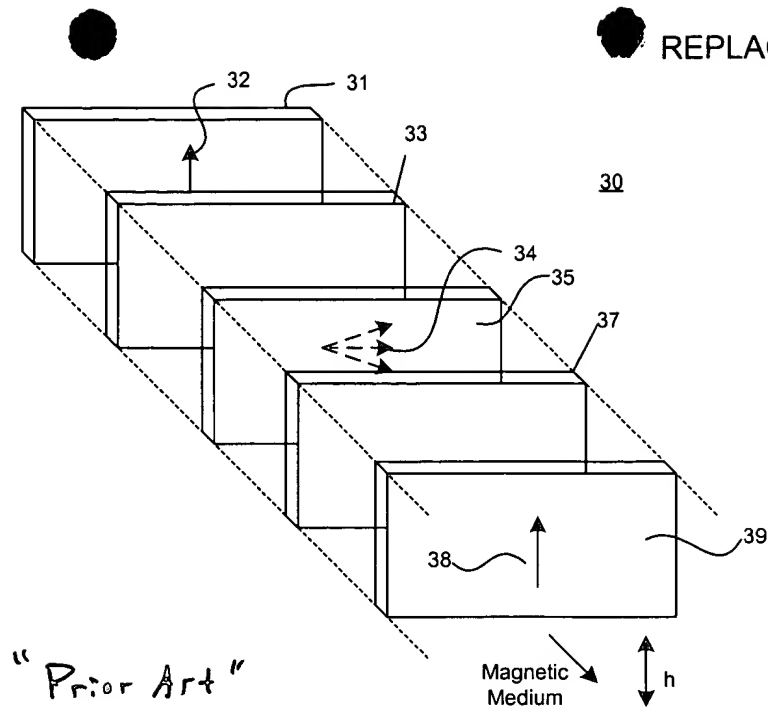


Figure 10A

Dee
00-113-TAP
Reduced Sensitivity Spin Valve Head
for Magnetic Tape Applications
Page 10 of 11

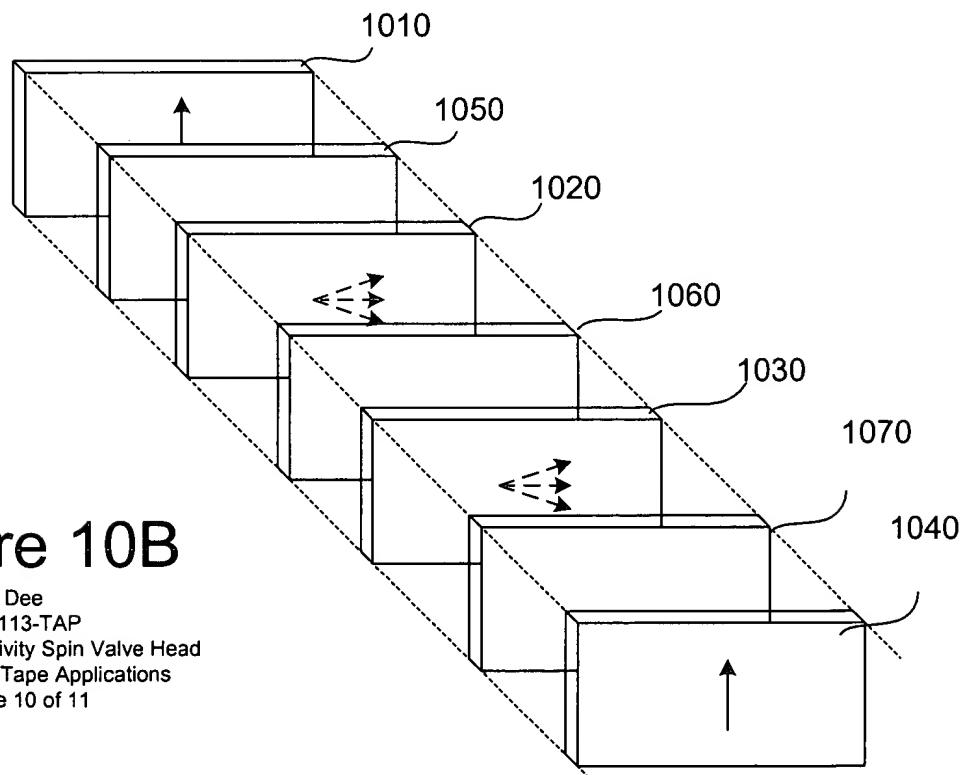


Figure 10B

Dee
00-113-TAP
Reduced Sensitivity Spin Valve Head
for Magnetic Tape Applications
Page 10 of 11